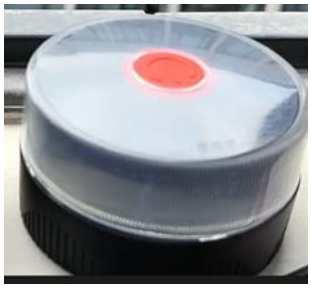
Telefónica Tech
TheThinX

JBM CAMPLLONG S.L.U. - 54904
Telefónica Tech TheThinX Test Report

Addressed to:	JBM CAMPLLONG S.L.U.
Manufacturer:	JBM CAMPLLONG S.L.U.
Device Type:	End Device
Model:	54904
Module:	Y7080E
Technology:	NB-IoT
Device SW Version:	V0.2
Module SW Version:	2212B07Y7080E-240506
Photo:	

As a result of TheThinX service, **JBM CAMPLLONG S.L.U. - 54904** end device, in its V0.2 version, have been found important issues as a result of TheThinX pre-testing service.

These issues may affect some device functionality.

JBM CAMPLLONG S.L.U. should deliver to Telefónica a solution plan to solve open issues.

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1. Tested Version

	Device under Testing
Model version	54904
SW/FW version	V0.2
HW version	V01
Module Model	Y7080E
Module FW version	2212B07Y7080E-240506[1]
Chipset Model	XY1100

Table 1. Software Test Environment

[1] Latest SW version validated by Telefónica IoT & Big Data TECH (https://okapi.telefonica.com/iot_modules/).

2. Testing result[2]

As a result of testing service TheThinX, Telefonica has tested **JBM CAMPLLONG S.L.U. - 54904** device with the result of several non-blocking issues, with testing concluding in a total of **9** bugs.

Summarizing, this document records all the issues found, and Telefonica strongly recommends solving, as soon as possible, all issues defined as:

- "P2-High" issues (1) because they may affect the device functionality.
- "P3-Medium" issues (2) because they might affect the device functionality.
- "P4-Low" issues (6) are related to those features to take into account. Telefonica's recommendation is to solve them to achieve important product improvements.

It is important to point out that:

- Device Behaviour:
  - DuT follows Telefonica´s recommended retry and reboot scheme for V16 Traffic Beacons.
- SWAP functionality is not in the scope of testing.
- FOTA update is not in the scope of testing.
- DuT does not handle ACK reception.

[2] Please, refer to Annex V for more detailed information about bug priority.

3. Scope of testing

The testing of **JBM CAMPLLONG S.L.U. – 54904** has been executed using Telefónica Country and specific laboratory mobile communications network and infrastructure as and Global Kite Platform as the Telefonica managed connectivity platform.

The testing dates have been:

- Start of Testing: 25/08/2025
- End of testing: 01/09/2025

The testing scope has been based on the following testing blocks:

General testing
General
Communication
Device Behaviour
Remote upgrade
Protocols
Stability
Device management
Physical
Power
Kite compatibility
Device identification
Use case specific
Specific tests

Table 2. Software Test Environment

4. Device Test Environment

a. Software items

The software engineering environment shall be according to the following configuration:

Tool	Description
CMW500	Wideband Radio Communication Tester
Chrome	Web navigator
MobaXterm	AT analysis
Interoperability Test Center	SIM logs analysis
Word	Word processing and document creation
Otii	Energy optimization of battery-driven devices tool.

Table 3. Software Test Environment

b. Hardware and Firmware items

The Hardware and Firmware engineering environment shall be according to the following configuration:

Tool	Description
M2M SIM Card	M2M SIM Card
CMW500	Wideband Radio Communication Tester
JBM 5904	Device Under Test
Comprion reader	SIM card reader
Otii	Energy optimization of battery-driven devices tool

Table 4. Hardware Test Environment

c. Other Materials

External power supply.

5. Test Procedure

a. Test Bench

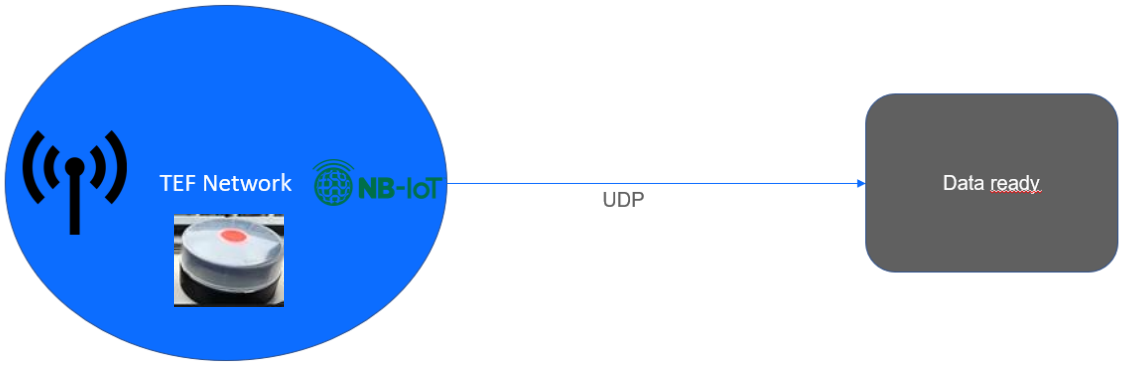

Figure 1. Simplified Test Bench

b. Architecture

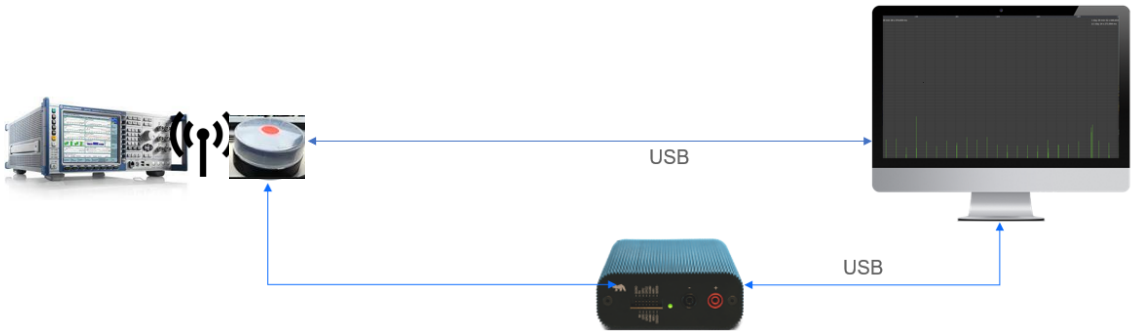

Figure 2. Simplified Architecture of test bench

c. Configuration process

This section describes the steps to get to the previous initialization state.

Commissioning: Not provided.

6. Test Report

TheThinX has tested the JBM CAMPLLONG S.L.U. - 54904 in TheThinX laboratories. The results of the tests are following:

a. General Description

	Device under Testing
Manufacturer	JBM CAMPLLONG S.L.U.
Date	02/09/2025
Model	54904
S/N, IMEI	861269084697050
FW Device Version	V0.2
Technology	NB-IoT
FW Module Version	2212B07Y7080E-240506

Table 5. General Description

b. Device Performance Information

		Device under Testing
Use Case		Beacon signalling light with geolocation for safety in road traffic
Device Name[3]		54904
3GPP Release		14
PDP context opening/activation time		4
Messages	**Purpose**[4]	Update location
	Number/Day[5]	Depend on the use case
	Upload/Download[6]	1 Up / 1 Down
	Payload size (Bytes)[7]	77 or 125 bytes up / 17 bytes down
	Message Size (Bytes)[8]	119 or 167 bytes up / 59 bytes down
Estimated Monthly Data Usage (Bytes)[9]		Depend on the use case
Consumption in a communication cycle		0.46 Wh
Avg. current drain		204 mA
Test Cases not applicable by DuT		7
Blocked Test Cases		5[10]
Executed Test Cases		69
Total Test Cases		115

Table 6. Device Performance Information

[3] DeviceName: Device Name collected in the SRF.
[4] Msg/Purpose: Purpose of communication from the device (for example, water measurements, location data, etc).
[5] Msg/NumberDay: Number of communications per day.
[6] Msg/UpDown: Number of Up and Down messages in a communication (for example, 2 Up, 1 Down).
[7] Msg/Payload: Number of bytes sent.
[8] Msg/PayloadFinal: Msg/Payload with headers depending on the communication protocol.
[9] Data Usage: Calculation of data that KITE would show monthly.
[10] TCs blocked due to bug 155387 [Regional] Not retry policy when ACK is missing, SIM Card not available for TC-DVCTC-IOTAP-005c and missing messages between the network and the device for TC-MIPLF-PRFTC-031j and TC-MIPLF-PRFTC-032i

c. IoT Device Control Information

	Device Under testing
Collect device capabilities	Yes
Reset device	Yes
Error case. MO SMS restricted.	Yes
IMEI	Yes
Location	No
Signal Strength	No
Radio Technology supported	No
Radio Technology in use	No
Battery Level	No
Check device capability when DuT switched OFF	Yes
Check IMEI during PSM state	NA
Check IMEI during eDRX state	NA

Table 7. IoT Device Control Information

7. Highlights of the testing

- Testing has finished with 9 bugs: 1 bug with priority P2 (High), 2 bugs with priority P3 (Medium) and 6 bugs with priority P4 (Low/Notification).
- Please refer to ANNEX II: Testing Details for more detailed information about testing results.

8. Disclaimers

- This report describes the tests executed on a given device under testing and the results of these tests.
- The report does not mean nor imply approval nor rejection of the solution. It neither implies that other devices of this class, not even the same device, will behave the same in later tests or situations.
    - Telefónica does not commit to arrive to a certain result derived from these tests.
- This report refers only to the version tested by Telefonica.
- This report refers only to the setup (device, communications and platform) employed.
- This report does not have any effect on any functionality not tested.
- In any case, the device under testing shall fulfil Telefonica requirements according to TDDC (Telefonica Device Design Council).
- Telefonica will not be responsible of any damage or loss provoked by the device under testing.

Best Regards,

José Rubén García Muñoz

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Telefónica IoT & Big Data TECH

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ANNEX I: TheThinX Results

a. Service Delivery Results

Bug ID	Priority[11]	Description	Business Impact	Recommendation
155439	P4	Bands reported by the device and by the SRF do not match	The SRF may cause confusion regarding device configuration or usage	The manufacturer should fix this information in SRF
155441	P4	The IoT Device Control functionality fails to collect the following device capability from Telefonica IoT platform: Location.	From Telefonica IoT platform will not be able to obtain the device capabilities	Manufacturer should provide a solution to support this functionality.
155423	P4	Device does not support RPM parameters.	Device cannot be monitored remotely	Only informative issue.
155440	P4	Service Request Form provided is not fulfilled with technical details	The SRF may cause confusion regarding device configuration or usage	The manufacturer should fix this information in SRF
156127	P4	Updated state diagram not provided.	The different steps programmed in the device in case of success or failure during its operation are unknown	The manufacturer should provide an updated state diagram.

Table 8. Service delivery results

[11] The meaning of Priority is included in ANNEX V: Telefonica bug Priority definition.

b. Possible Network Impact Results

Test Case	Priority[12]	Description	Network Impact	Recommendation
156126	P2	When the device is connected under roaming conditions, it remains attached for a short period of time but reboots before transmitting the protocol A frame. This behaviour occurs repeatedly in a loop.	The continuous re-attachments to the network generate unnecessary signalling traffic, which can lead to signalling channel congestion, especially when multiple devices exhibit the same behaviour under roaming conditions.	 Best_practices_beacon_V_16_V1.4_EN.pc
155446 155447	P3	The device always registers to the network in a synchronized way. There is a slight offset between devices but it is always the same and not random.	In some network problems the devices communicate at the same time. As this kind of device is typically deployed in high densities it will certainly cause saturation in the base stations signalling channel.	
155387	P4	The device does not implement a retry policy when not receiving an ACK. The device still working with normal behaviour and does not perform any reboot.	The device continues operating even when data transmission with ACK is failing. It does not change the retry interval nor perform a reboot to recover the service as quickly as possible.	

Table 9. Possible network impact results

[12] The meaning of Priority is included in ANNEX V: Telefonica bug Priority definition.

ANNEX II: Testing Details

a. Tested versions (Device under Testing)

- Model: 54904
- SW version: V0.2

JBM - 54904 - ES - ALL - (VERSION_ SW_

JBM_54904_pretesting_V02_logs.rar

b. History of testing

	End of Testing date	SW versions	Final Report
1st Testing	1st August 2025	V0.1	Global Telefonica TheThinX Report_JBl
2nd Testing	1st September 2025	V0.2	

Table 10. History of testing

c. Bug tracking

Bug ID	Summary	Status	Details
155412	The device sends location data after losing GPS coverage	CLOSED - INVALID	Fixed in this additional testing with SW version: V0.2
155424	Device enables and configures the extended protocol configuration options (ePCO)	CLOSED - FIXED	Fixed in this additional testing with SW version: V0.2
155442	The device is not able to detect when SIM card is removed	CLOSED - FIXED	Fixed in this additional testing with SW version: V0.2
155443 155444 155445	The device does not reboot after receiving Attach Reject with cause #3 #7 #6	CLOSED - FIXED	Fixed in this additional testing with SW version: V0.2
155448 155449 155477 155478 155479 155480	The device does not reboot after receiving Detach Request with cause #7	CLOSED - FIXED	Fixed in this additional testing with SW version: V0.2

Table 11. Bug Tracking

ANNEX III: Document Version

Version	Date	Author	Reviewed Impact	Change	Change Description
1.0	10/09/2025	Emilio Mira			Opening Version

Table 12. Document version

ANNEX IV: Test Historical

The historical test follows the document below:

Test_Historical.xlsx

	Result
Manufacturer	JBM CAMPLLONG S.L.U.
Model	54904
Debug Changes[13]	0
Debug Time[14]	0 hours
Debug Time Average[15]	0 hours

Table 13. Test history

[13] Debug Changes: Number of times manufacturer support was required.
[14] Debug Time: Total time it took the manufacturer to answer to support.
[15] Debug Time Average: Debug Time divided by Debug Changes.

ANNEX V: Telefonica bug Priority definition

Telefónica bug Priority		Severity	Highlight	Description	Examples
P1	Highest	Critical	Most important: showstopper, blocking.	DuT can NOT be approved with this bug.	Bug is blocking device running or product tests or security and there is no workaround. DuT is not presenting mandatory certificates/documents. DuT behaviour is affecting network or other service users.
P2	High	Medium	Very important, but not showstopper.	DuT's vendor must deliver a "solution plan": when it will be fixed. Telefonica will decide what to do then.	Bug is blocking device running or product tests or security and there is uneasy workaround.
P3	Medium	Low	Should be solved.	DuT's vendor should provide a solution but a wontfix is acceptable. Solution is less priority than P2 bug.	Bug is blocking device running or product tests or security but there is easy workaround. Bug is affecting secondary feature.
P4	Low	Notification	Something to highlight.	Something to consider for the future. The only difference between P3 and P4 is that the P3's is preferred to be solved before the P4's.	Improvement or inconvenience to consider. DuT behaviour is not following Telefonica device behaviour recommendations.

Telefónica bug Severity
Severity field is in practice not considered for Telefónica to avoid the possibility of giving contradictory messages between the Priority and Severity fields Please feel free to ignore it. The default value is Critical, Medium, Low or Notification for bugs of priorities P1, P2, P3 and P4, respectively, but the testers could change it.

Table 14. Bug priority definition